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(71) Applicant *(for all designated States except US)*: UROCOR, INC. [US/US]; 800 Research Parkway, Oklahoma City, OK 73104 (US).

(72) Inventors; and

(75) Inventors/Applicants *(for US only)*: RALPH, David [US/US]; 2504 Stonehenge Drive, Edmond, OK 73034 (US). AN, Gang [CN/US]; 2609 N.W. 160th Street, Edmond, OK 73013 (US). O'HARA, Mark [US/US]; 130 N.W. 17th Street, Oklahoma City, OK 73101 (US). VELTRI, Robert [US/US]; 7301 N.E. 106th Street, Oklahoma City, OK 73151 (US).

(74) Agent: CORDER, Timothy, S.; Arnold, White & Durkee, P.O. Box 4433, Houston, TX 77210 (US).

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(54) Title: DIAGNOSIS OF DISEASE STATE USING MRNA PROFILES

(57) Abstract

Disclosed are diagnostic techniques for the detection of a human diseased state. Genetic probes and methods useful in monitoring the progression and diagnosis of the disease state are described. The invention relates particularly to probes and methods for evaluating the presence of RNA species that are differentially expressed in the peripheral blood of individuals with the disease state compared to normal healthy individuals. Further disclosed is a multivariate diagnostic model for prostate cancer in a population of men with moderately elevated total serum PSA (≥ 2.0 ng/ml). Results of quantitative serum assays for the UC325 gene product [Interleukin–8 (IL–8)], total prostate specific antigen (t–PSA), as well as Free/Total (f/t PSA) ratios were combined to enhance the sensitivity of prostate cancer diagnosis in a defined urologic population diagnosed either organ–confined prostate cancer (clinical stage A & B), non–organ–confined prostate cancer (clinical stage C or D) or benign prostatic hyperplasia (BPH). The additional ability of UC325 gene product serum levels to accurately stage prostate cancer independently of t–PSA of f/t PSA is disclosed.

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